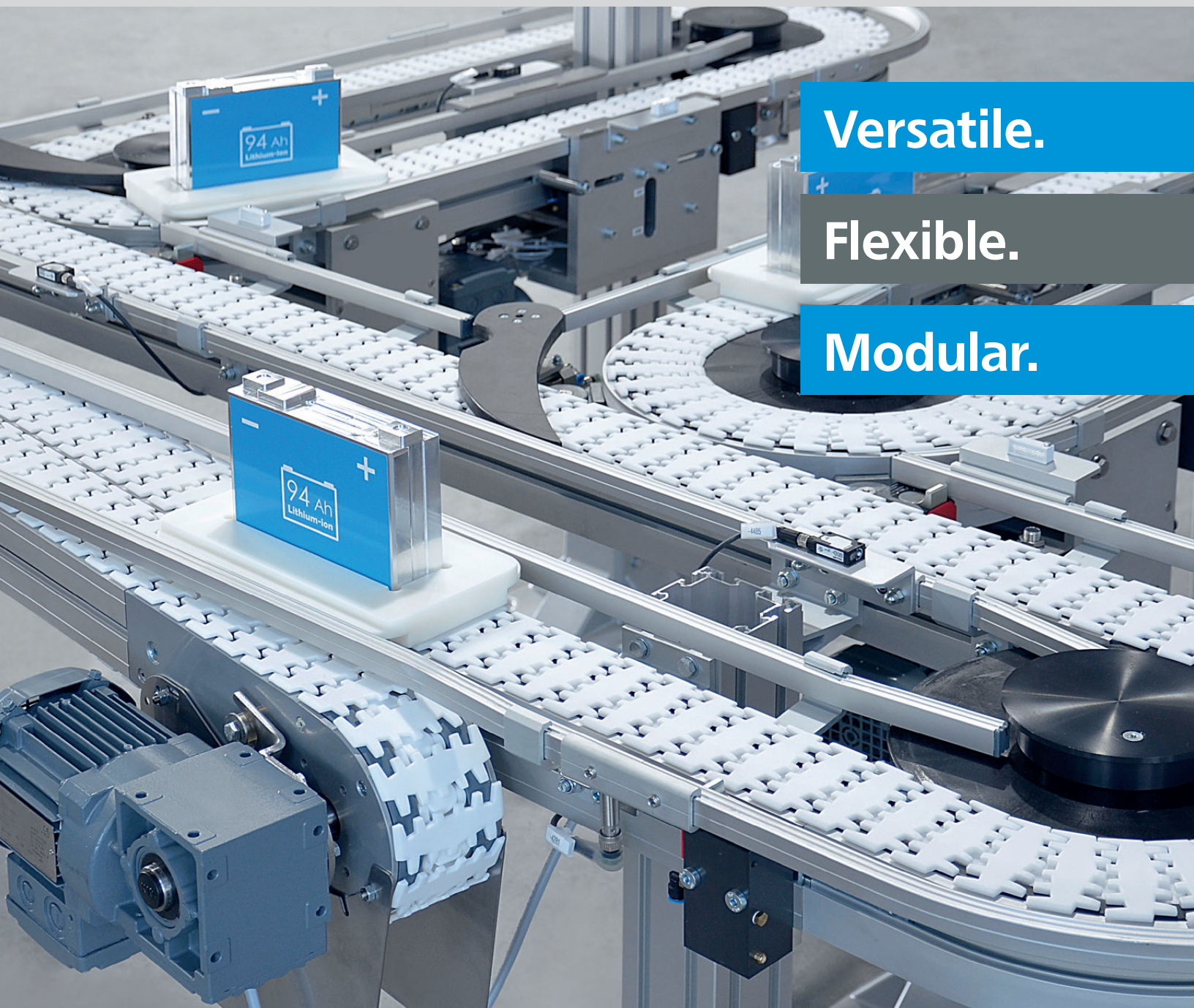


Flat Top Chain Conveyor Systems



Versatile.

Flexible.

Modular.



Introduction to mk

mk North America, Inc. is a member of the mk Technology Group and a leading worldwide manufacturer of aluminum conveyors, pallet-handling systems, stainless steel conveyors, and extruded aluminum framing.

Unsurpassed variety, maximum flexibility and easy integration are reasons mk has become the supplier of choice for machine builders, system integrators and manufacturing companies around the globe.

Since 1988 mk North America has been providing diverse industrial know-how, superb quality, constant innovation and application engineering excellence. mk North America offers you the perfect solution for any application.



better products. better solutions.

At mk North America we believe in offering not only better products, but also better solutions. We offer the most extensive product line in the industry; featuring more than 30 different types of conveyors. This allows us to partner with you to provide just the right solution for your needs.

Our broad offering and years of experience in material handling allows us to provide the best equipment for your individual needs. Our innovative conveying, both standard and custom, has proven itself in the automotive, manufacturing, machine builder, electronics, consumer goods, and printing industries, to name a few.

When ordering our conveyors you will experience firsthand the benefits of our innovative designs, competitive pricing and exceptional customer service.

At mk we are dedicated to providing you better products and better solutions.

The mk Advantage

- ✓ Robust construction and high quality components decrease downtime and increase productivity
- ✓ Modular design reduces engineering costs and lead-times
- ✓ Technical application assistance
- ✓ Competitive pricing
- ✓ Innovative designs
- ✓ Custom solutions

VersaFlex – Versatile and Flexible



Introduction to VersaFlex

The versatile and flexible flat top chain conveyor system VersaFlex features a modular design. The standardized modules and components make it simple and cost effective to integrate the system into any production process, as well as to adapt and expand it.

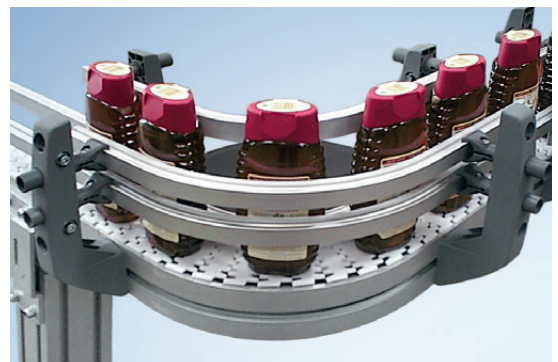
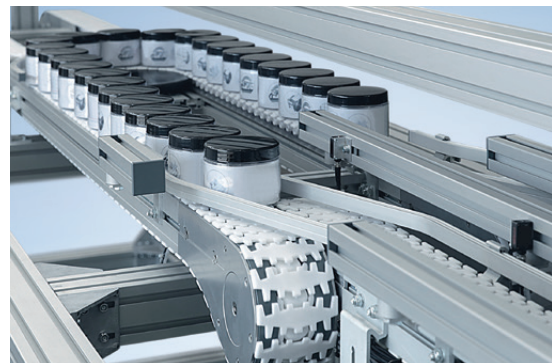
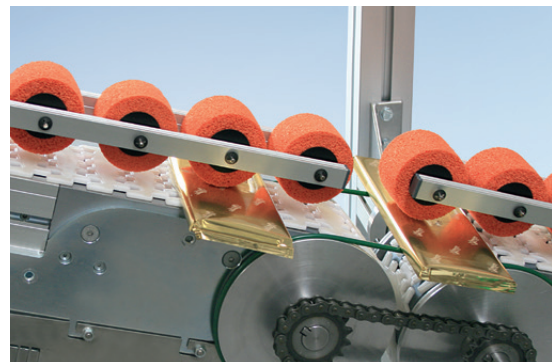
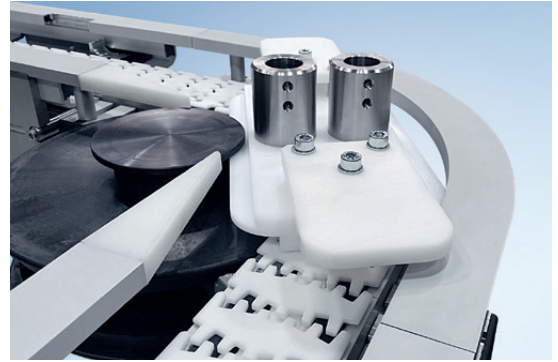
VersaFlex is a conveyor system that grows with your requirements. Moreover, it is compatible with systems that are currently available on the market.

The single-track design and curve radii starting at 150 mm allow complex track designs within a three dimensional space. The conveyor can operate at speeds up to 165 fpm and system lengths up to 40 m with just one drive.


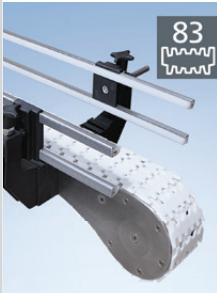
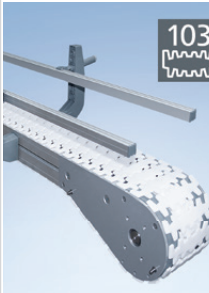
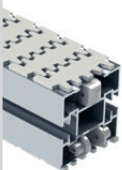


VersaFlex has been used successfully for years in various industries and applications.

Benefits of VersaFlex

- ✓ Suitable for all industries
- ✓ Saves energy and space
- ✓ Compatible with existing systems
- ✓ Simple and fast configuration
- ✓ User friendly and low maintenance
- ✓ Modular system of standard components
- ✓ Enables cost-effective solutions for complex layouts
- ✓ Can quickly adapt to new production or environmental conditions
- ✓ Side-flexing plastic chain allows for horizontal turns and elevation changes within a single continuous run
- ✓ Accessories, stands and side rails can be attached to the t-slot in the conveyor frame

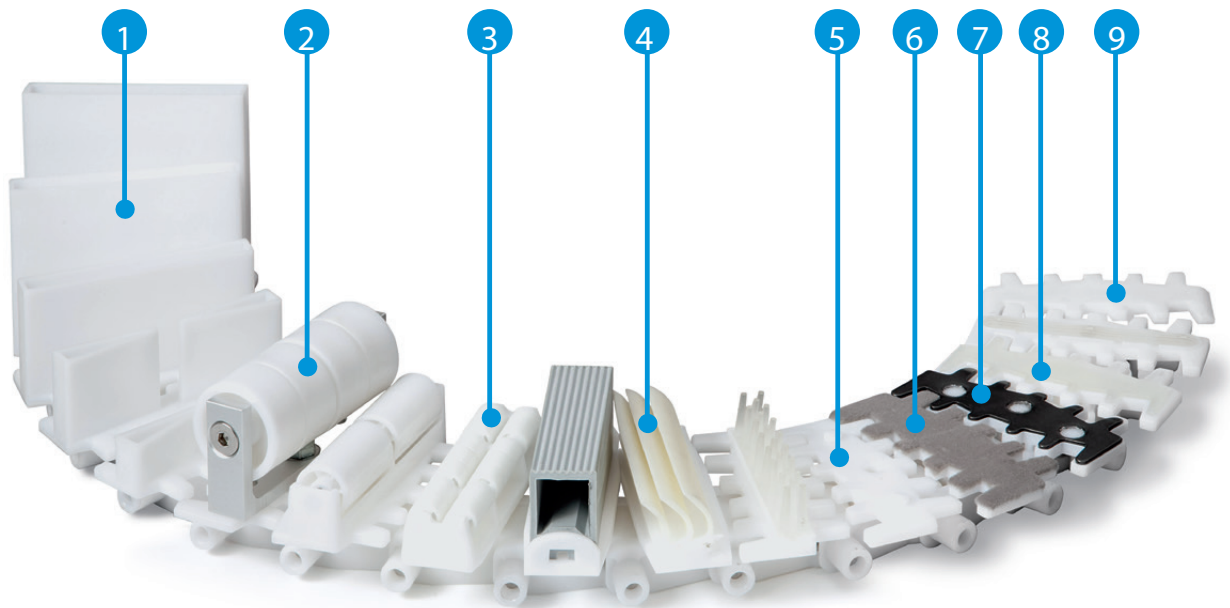


Overview of Systems

System	A06	A08	A10
			
Frame width (mm)	65	85	105
Frame height including chain (mm)	73	85	86
Maximum total load (lbs.)	330	440	440
Maximum conveyor length (m)	40	30	30
Maximum conveyor speed (fpm)	165	165	165
Chain width (mm)	63	83	103
Chain pitch (mm)	25.4	33.5	35.5
Chain tensile force (N)	500	1,250	1,250
Product width (mm)	15-140	20-200	25-300
Maximum product weight (lbs.) Horizontal conveying	22	33	44
Maximum product weight (lbs.) Incline conveying	7	22	33
Cross-sectional view			

Conveyor Chain

The conveyor chains are made from the material POM and are available in a wide variety of designs for virtually all applications – with an adhesive surface for inclines, with steel covering for sharp-edged parts or flocked for transporting very delicate items. In addition, a large number of different cleats are available – rollers in a wide range of dimensions for accumulating products, or flexible cleats for wedge conveyor designs. Additionally, chain links with embedded magnets can be used to transport magnetized parts.



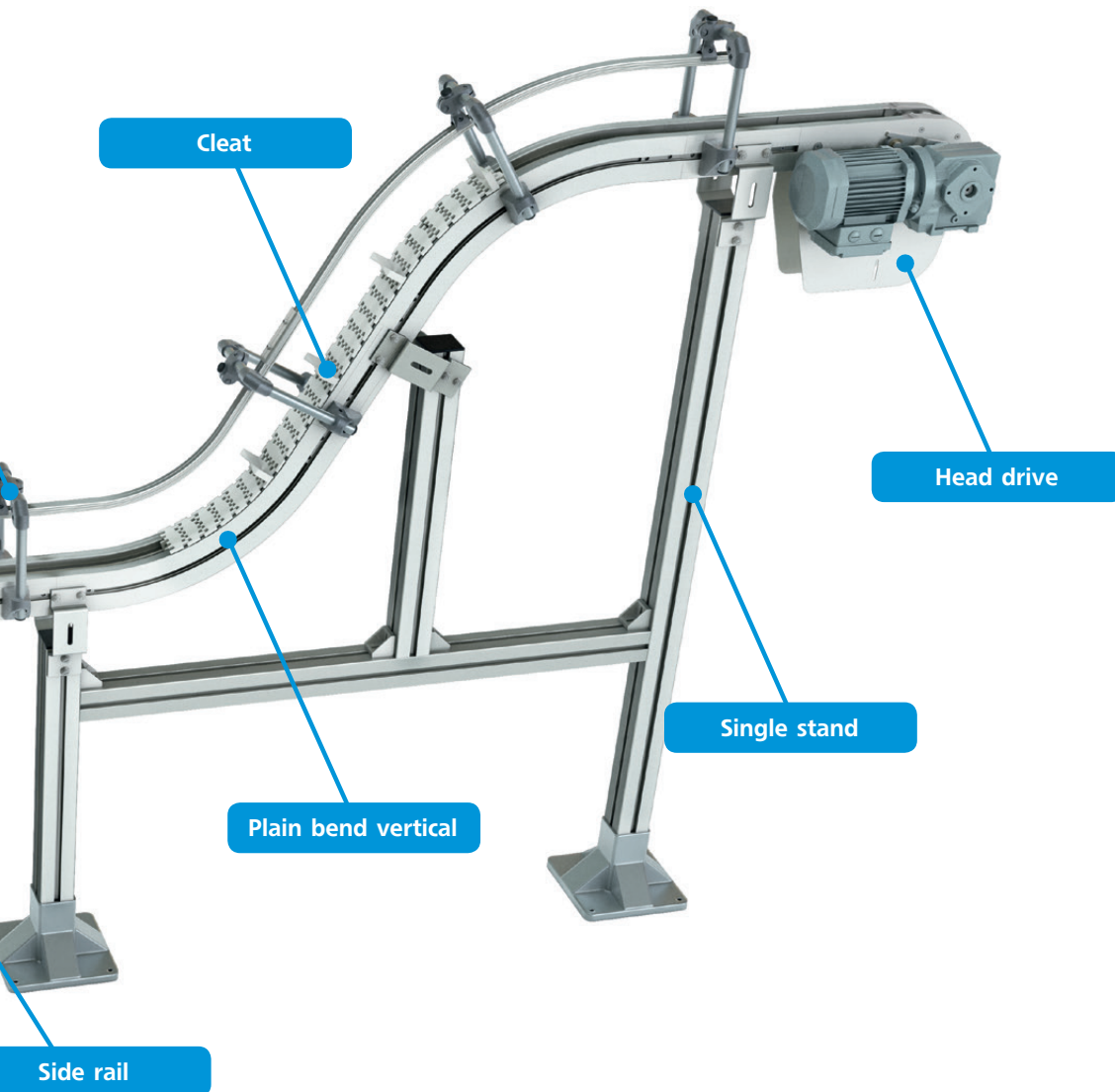
- 1 Cleated chain
- 2 Roller chain
- 3 Roller top chain
- 4 Side gripping
- 5 Chain for attachments
- 6 Flocked chain
- 7 Steel top chain
- 8 Chain with adhesive surface
- 9 Plain chain

VersaFlex – Configuration Components

Benefits

- ✓ Economical solution for complex layouts
- ✓ Simple and fast configuration and commissioning
- ✓ Suitable for all industries and compatible with existing systems





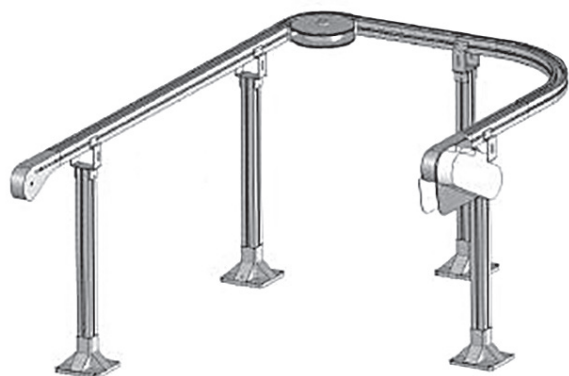
Application Examples

Ideal for primary and secondary-packaged products from, among others; the paper converting, pharmaceutical, and consumer goods industries. Also VersaFlex is excellent for conveying pallets on assembly lines (e.g. of the automotive industry) and for conveying between various machines in the manufacturing and assembly industries.



Configuration Options

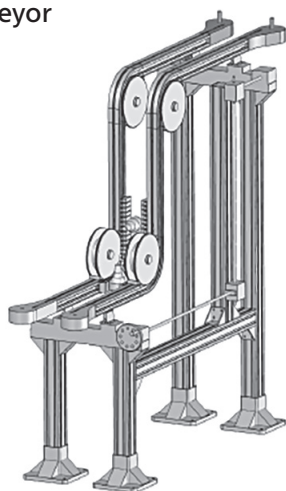
Horizontal conveyor



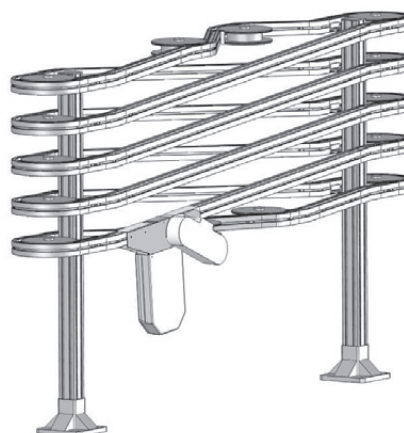
Incline conveyor



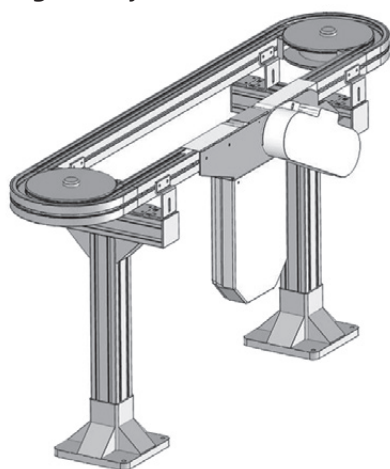
Wedge conveyor



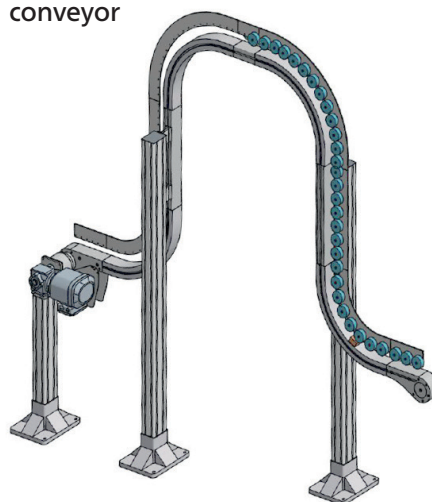
Alpine conveyor



Recirculating conveyor

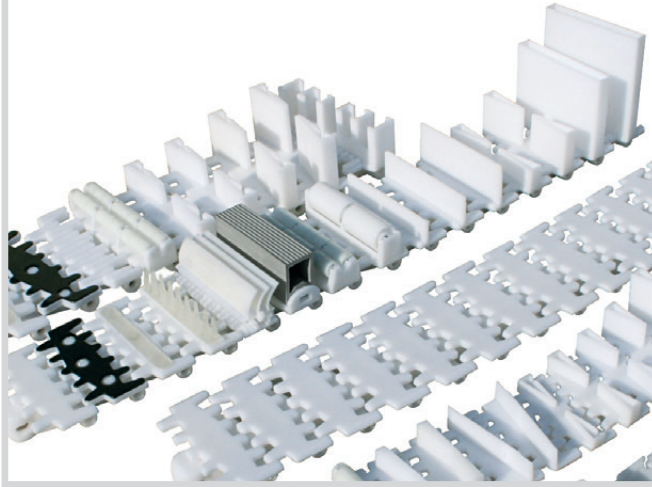


Vertical conveyor

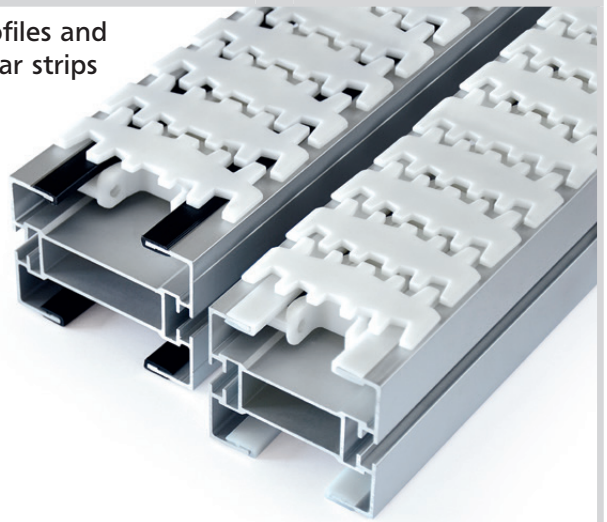


Modules

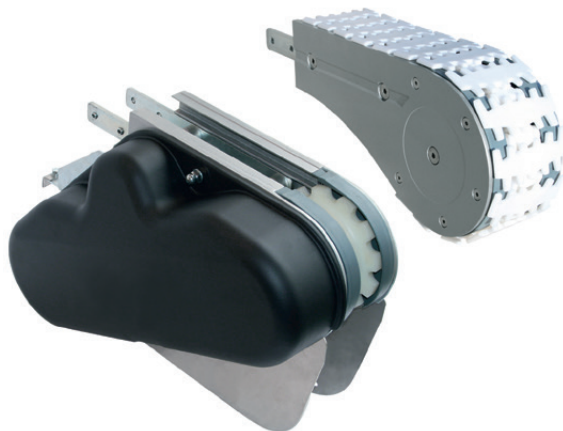
Chains and cleats



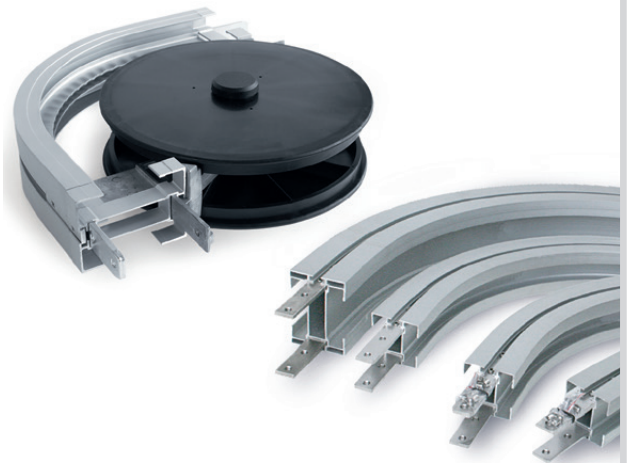
Profiles and wear strips



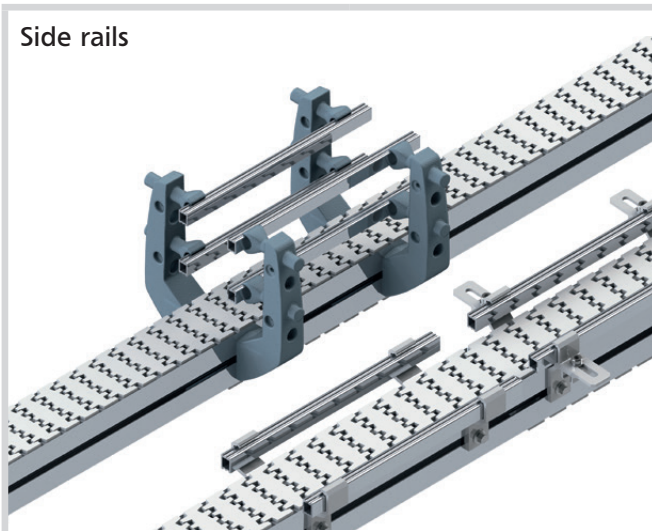
Drives and idlers



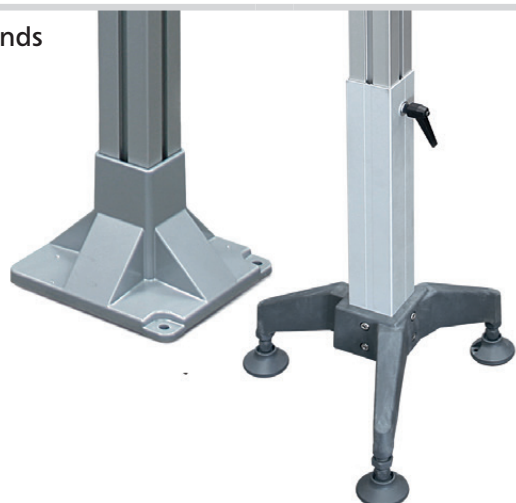
Curves and bends



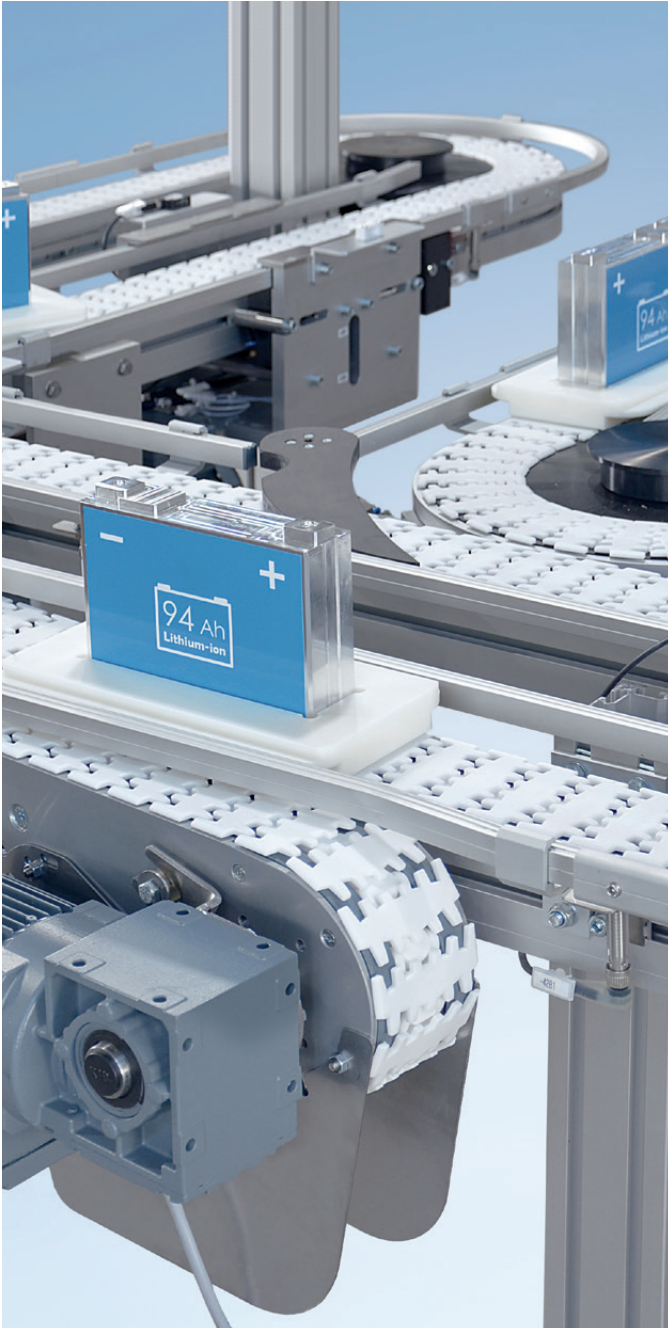
Side rails



Stands



VersaFlex – Pallet-Handling System



Solutions for Automation

mk's VersaFlex pallet-handling systems are designed to improve manufacturing productivity while allowing for maximum process flexibility.

Designed around the A08 conveyor, VersaFlex is a non-synchronous workpiece pallet-based conveyor system. It is designed to improve manufacturing productivity and product quality while allowing for maximum process flexibility.

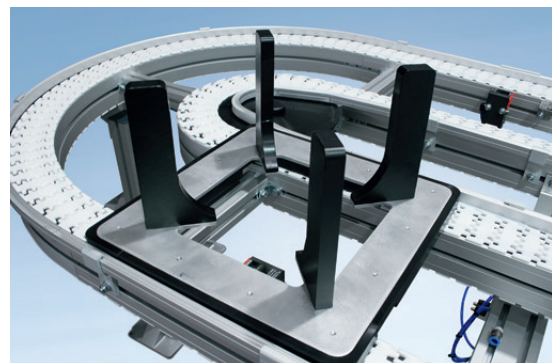
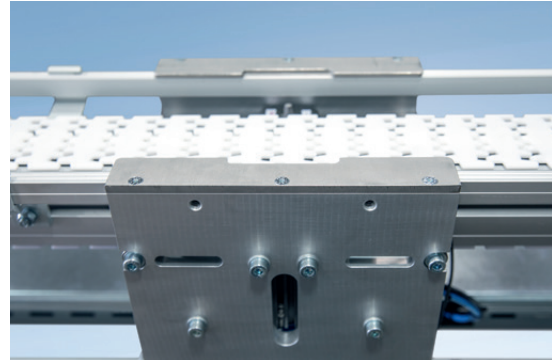
The A08 system is 85 mm wide (chain width 83 mm) and is designed for products weighing up to 22 lbs. per pallet. Pallets have a standard width of 150 mm and are guided by side rails; wider pallets are possible on dual-lane conveyors.

The pallet can be customized and equipped with individual fixtures. Stops, queues and locate stations are all part of the VersaFlex pallet-handling line.

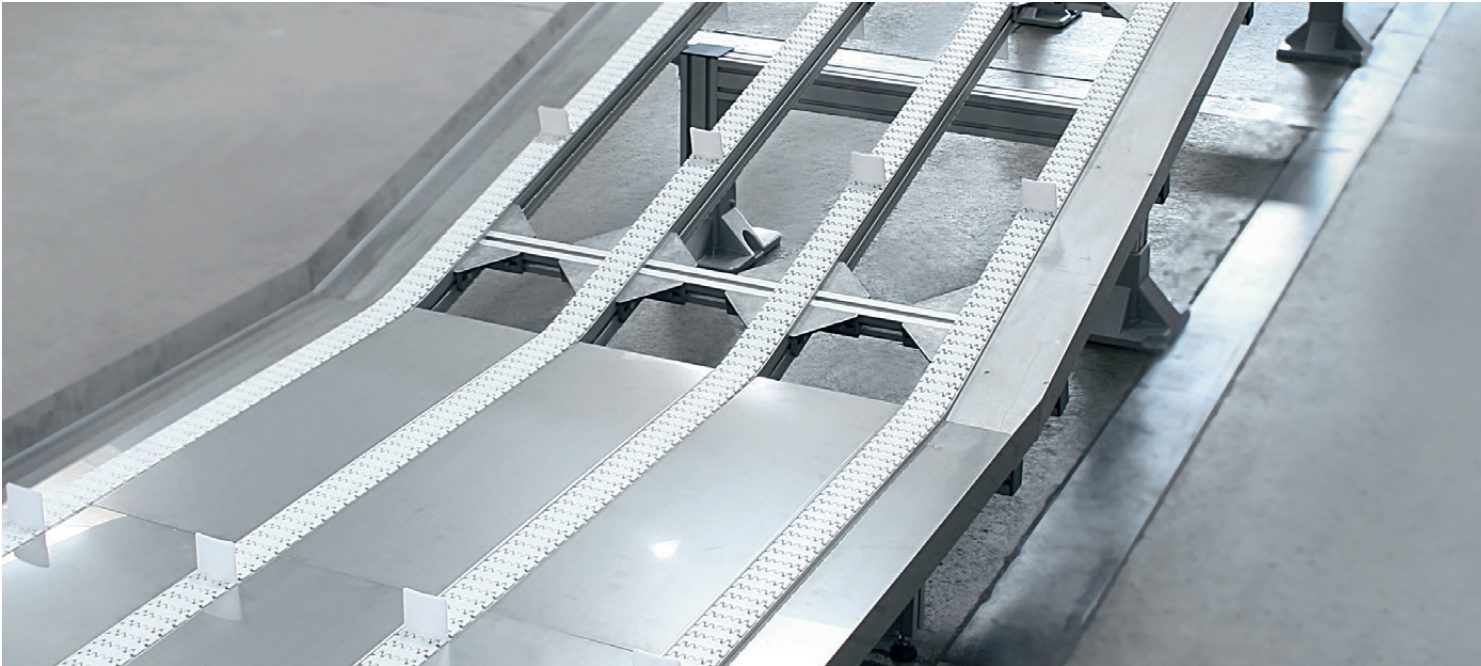
A positional accuracy of ± 0.1 mm is possible when using mk pallets and mk locating devices. The pallet is lifted off the chain, while the conveyor continues to run. The locate station can be re-positioned without changing the side rails.

Benefits of VersaFlex Pallet-Handling

- ✓ Easy to expand and reconfigure
- ✓ Allows for higher machine autonomy
- ✓ Space saving designs and configurations
- ✓ Available in single or dual-lane configurations
- ✓ Excellent for accumulating product between stations
- ✓ Simple and accurate positioning for automated processes
- ✓ Can quickly be altered to adapt for changes to product
- ✓ Easily conveys products that have unusual shapes or geometry
- ✓ Offers a large variety of pre-engineered transfers, positioning and traffic modules



VersaFlex – Application Examples



Quad-lane VersaFlex A06 for conveying product from horizontal to incline. Chain includes cleats.



Vertical product conveying is possible for the VersaFlex. In this application guider-rollers above the chain help contain the product.



Product transfers, such as the rollers seen on this idler, make it possible to convey products with small footprints between conveyors.



Grip top belting allows for VersaFlex conveyors to be used as side-gridders, to carry the product from one conveyor to the next.

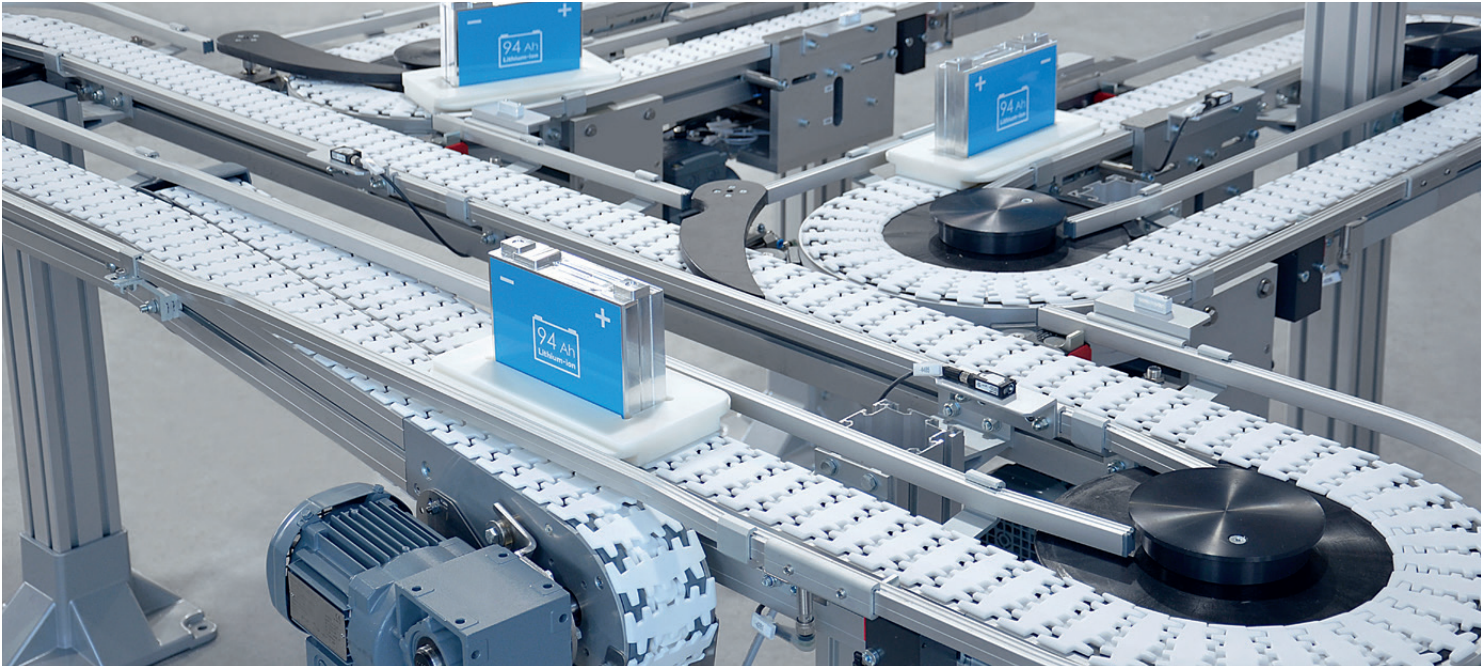


VersaFlex table top chain conveyors are ideal for various applications, such as this accumulation table.



A wide variety of custom solutions are available with VersaFlex conveyors such as a product separator device.

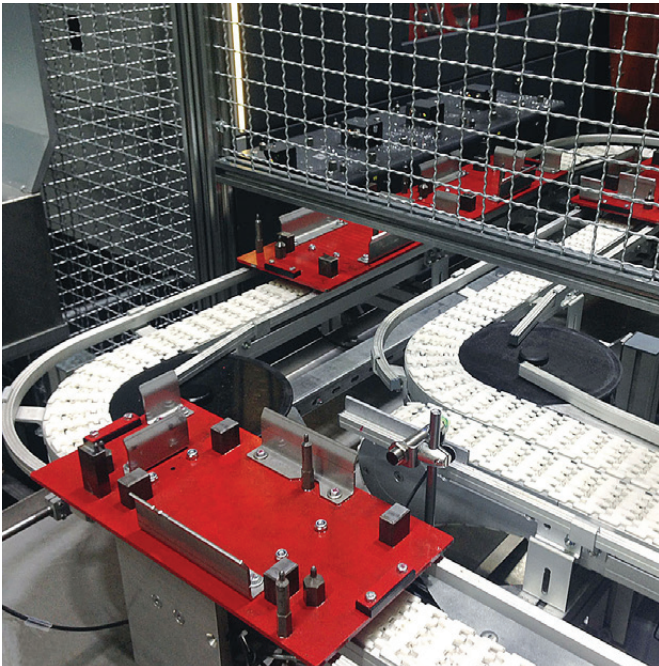
VersaFlex – Pallet-Handling Application Examples



VersaFlex pallet-handling systems allow for multiple stations and processes to be joined together via a single conveyor system.



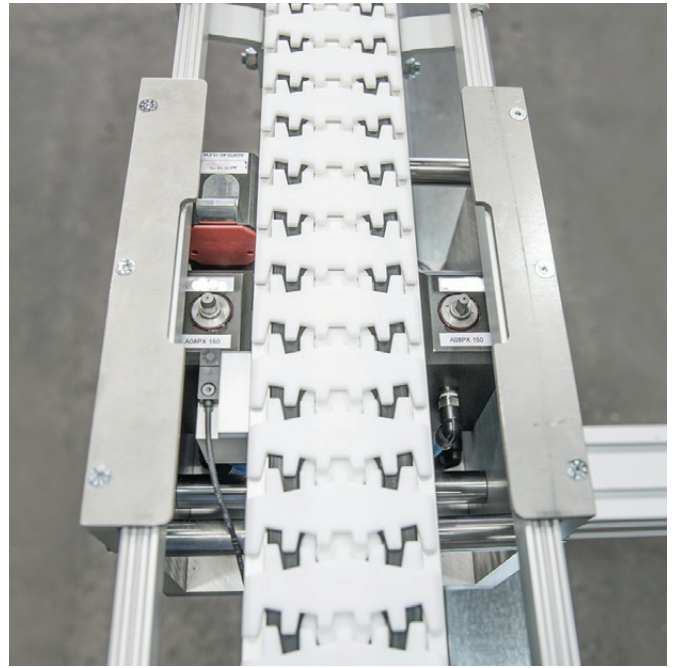
Diversers economically and effectively help control pallet flow on a VersaFlex pallet-handling system.



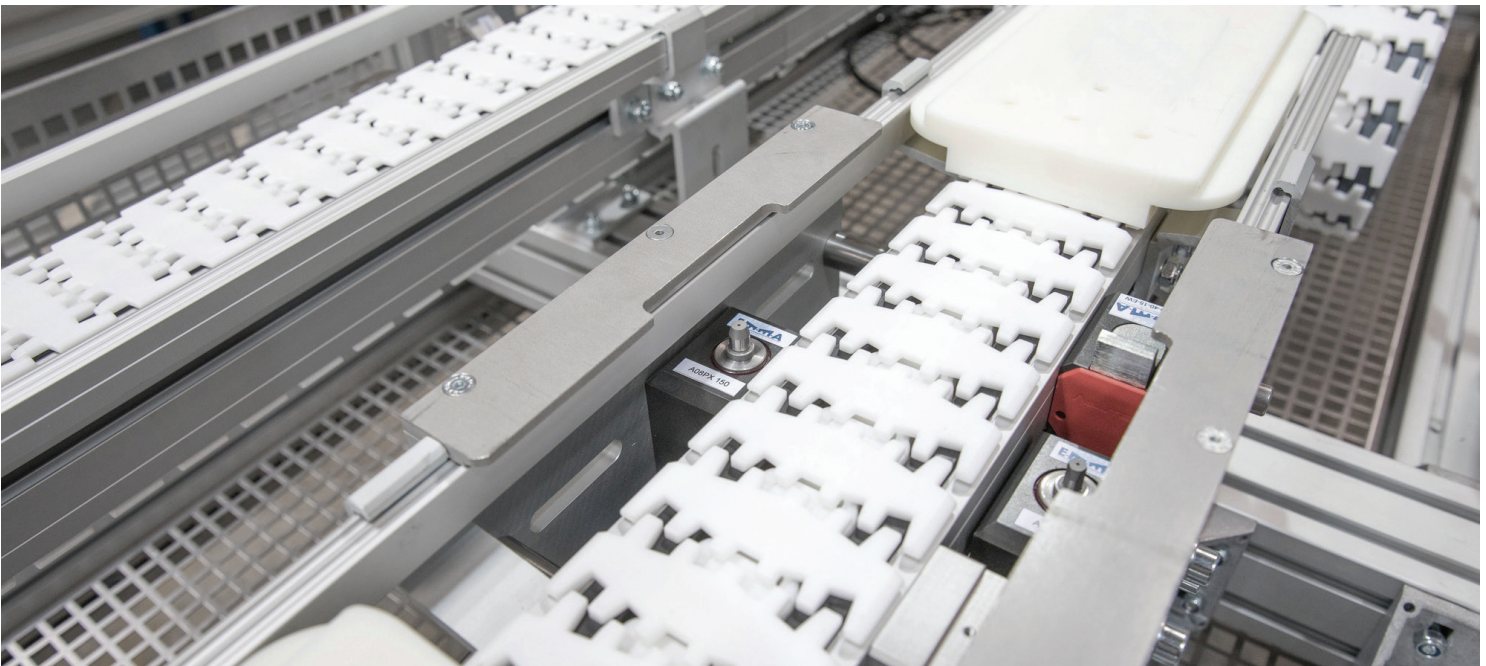
While the bottom structure of the pallet often remains the same, it is easy to add custom topside pallets and fixtures.



Pallets can be equipped with a variety of features, and can be made custom for nearly any application.



Pallets are designed to overhang the edges of the chain. This allows them to engage with stop and locate features.



Stop, locate and lift features are fully modular, allowing them to be positioned anywhere along the conveyor line without adjusting the side rails.



Dependable Solutions

Productivity is key to your company's success in a globally competitive marketplace. It's imperative that your machines and conveyor systems run as you expect them; allowing you to fulfill your customer's requirements quickly, efficiently and accurately. When you work with mk North America, you are working with a conveyor company that can ensure you are able to meet your customer's demands. We offer comprehensive services to assist you at every stage of your project.

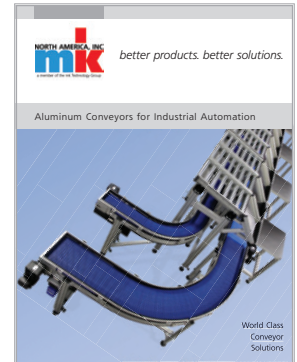
Based on your specific application, the mk team will provide technical expertise and help with planning, design and implementation of your next conveyor line. Our after-sales team will help ensure that your conveyor keeps running once it is installed.

Our Other Products

Aluminum Conveyors

With over 20 different conveying systems, mk offers a product variety which is unsurpassed in the marketplace. Our broad offering, and more than 30 years of experience in material handling, leads to robust solutions that feature long life and reliable operation while maintaining all the advantages of modular design and expandability.

Our innovative conveying solutions, both standard and custom, have proven themselves in automotive, manufacturing, machine builder & integrators, metal working, packaging, pharmaceutical and printing industries.



VersaMove Pallet-Handling Conveyor Systems



mk North America manufactures pallet conveyors over three different platforms. This allows for the pallet-handling system to be tailored to meet your specific needs. mk believes in offering not only a better product, but also a better solution. VersaMove pallet-handling conveyors are pre-engineered and modular. The system can be easily expanded or reconfigured as your manufacturing needs change. Our workpiece pallet conveyors can be used in a variety of layouts, or combined for even greater flexibility in planning production processes. www.mkversamove.com



Extruded Aluminum Framing

mk Aluminum Framing Systems feature over 200 different profile shapes and more than 2,700 connectors and system components, all engineered for a precise fit and maximum rigidity. Forget the hassles and inflexibility of steel — the welding, grinding, painting and waiting. mk offers you fast assembly, easy reconfiguration and unlimited flexibility.

With mk Aluminum Framing you can build just about anything you can imagine. Whether it be machine bases, safety enclosures, perimeter guards, tool racks, robot stands, carts, workstations, display units or something else; with mk's aluminum framing, the possibilities are nearly limitless.



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